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MANAGEMENT OF AN INDUSTRIAL PLANT IN CHINA

Kung-ch'ang Ku-ting Tzu-ch'an Kuan-li
(Management of an Industrial Plant)
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[Comment: This report summarizes briefly the above-mentioned book, giving general information on the building and management of industrial plants, utilization and control of machinery and equipment, and repair and inspection of tools.]

Plant Construction

In building a plant three factors should be given thorough consideration: engineering problems, working comfort, and construction costs. Engineering problems deal with shop arrangements, transportation facilities, types of buildings and construction materials; working comfort includes consideration of light, ventilation, heat, humidity, dust, air, water, sanitation, and toilet facilities; construction costs involve an accurate and suitable accounting system, taking such factors as depreciation and repair into consideration.

Machinery, Equipment, and Tools

Equipment is divided into the following categories: power equipment, production equipment, support equipment, and transport equipment. A few samples of each category are given below.

1. Power equipment: thermal, hydraulic, and electric
2. Support equipment: gauges and scientific instruments
3. Transport equipment: Hand barrows, conveyor belts, elevators, and lifts
4. Production equipment: classified according to departments, specialization, or degree of mechanization

Tools are divided into the following categories: cutting tools, supporting tools, measuring instruments, and repairing tools.

To operate efficiently, both the inventory record card, which covers prices, manufacturers, damages, etc., and the equipment record card, which includes costs, repairs, and production data, must be carefully kept.

Location of Plants and Equipment

Efficient production depends greatly on the location of plants and equipment. Therefore, the following factors should be carefully considered: production needs, area for production equipment, support equipment, and transport equipment, space for workers, materials, machinery, and tools, storage space, and service departments.

According to incomplete statistics, each finished industrial product is transported from 20 to 180 times while being processed. For example, in a certain cast-iron pipe plant, each ton of cast-iron pipes involves the transporting of 67 tons of raw materials; in an agricultural equipment plant, each ton of farm equipment requires the transporting of 180 tons of raw materials. While being

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processed the average finished industrial product is transported about 50 times. According to statistics, transportation charges comprise about 22 percent of the total production costs.

As a result of poor arrangement of machinery and transportation facilities, Paper Mill No 146 [location not indicated] was operating inefficiently. After important changes were made and storage space was increased 15 percent, production increased 10-20 percent and the labor force was reduced by 30-34 workers.

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